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| From: | STEPHEN J. SCHULTZ |
| Date: | 3/21/03 |
| Our File No.: | 14-694 |
| No. of pages: (including this cover pg.) | 8 |

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE PATENT

IN RE APPLICATION: Usama Fayyad et al.

Serial No. 09/700,606 Group Art Unit: 2171

Filed: January 31, 2001

Title: SCALABLE SYSTEM FOR CLUSTERING OF LARGE DATABASES HAVING MIXED ATTRIBUTES

Docket No. 14-694 - 4254

Watts, Hoffmann, Fisher & Heinke, Co., LPA
1100 Superior Avenue, Ste. 1750
Cleveland, Ohio 44114

VIA FACSIMILE (703) 305-3230

Attention: Ms. Cathy Short
Assistant Commissioner for Patents, Box PCT
Washington, D.C. 20231

REQUEST FOR CORRECTED FILING RECEIPT

Dear Ms. Short:

As evidenced by the enclosed copy of page one of the specification, noting the first two paragraphs, and the enclosed copy of the Declaration and Power of Attorney, the correct domestic priority data as claimed by applicant should read as follows:

THIS APPLICATION IS A 371 OF PCT/US99/06717 03/29/1999

WHICH IS A CIP OF 09/083,906 05/22/1998


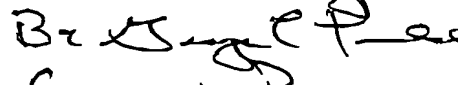
WHICH CLAIMS BENEFIT OF 60/086,410 05/22/1998

A copy of the original filing receipt is enclosed which shows the necessary corrections. A corrected filing is **urgently** and respectfully requested since this application has been passed to issue.

Respectfully submitted,

Date: 3/21/03

Telephone: 216-241-6700
Facsimile: 216-241-8151


Stephen S. Schultz
Reg. No. 29,108

George L. Pinchak
Reg. No. 37,697
With Consent

A Scalable System for Clustering of Large Databases Having Mixed Data Attributes

Cross Reference to Related Applications

The present invention is a continuation in part of co-pending United States
5 patent application serial number 09/083,906 entitled "A Scalable System for
Expectation Maximization Clustering of Large Databases" to Fayyad et al having a
filing date of May 22, 1998, and which is assigned to the assignee of the present
application and is incorporated herein by reference.

Priority is claimed from provisional United States patent application serial
10 number 60/086,410 filed May 22, 1998.

Field of the Invention

The present invention concerns database analysis and more particularly
concerns an apparatus and method for clustering of data into groups that capture
15 important regularities and characteristics of the data.

Background Art

Large data sets are now commonly used in most business organizations. In
fact, so much data has been gathered that asking even a simple question about the data
20 has become a challenge. The modern information revolution is creating huge data
stores which, instead of offering increased productivity and new opportunities, can
overwhelm the users with a flood of information. Tapping into large databases for
even simple browsing can result in a return of irrelevant and unimportant facts. Even
people who do not 'own' large databases face the overload problem when accessing
25 databases on the Internet. A large challenge now facing the database community is
how to sift through these databases to find useful information.

Existing database management systems (DBMS) perform the steps of reliably
storing data and retrieving the data using a data access language, typically SQL. One
major use of database technology is to help individuals and organizations make
30 decisions and generate reports based on the data contained in the database.

An important class of problems in the areas of *decision support* and *reporting*
are clustering (segmentation) problems where one is interested in finding groupings
(clusters) in the data. Data clustering has been used in statistics, pattern recognition,

Attorney's Docket No. 14-694Patent

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below-named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

A SCALABLE SYSTEM FOR CLUSTERING OF LARGE DATABASES MIXED DATA ATTRIBUTES

the specification of which:

_____ is attached hereto.
_____ was filed on as United States Patent Application Number _____ and was amended on _____ (if applicable).
X was filed on March 29, 1999 as PCT International Application Number PCT/US99/06717.

I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56. Under that section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and (1) it establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or (2) it refutes, or is inconsistent with, a position the applicant takes in: (i) opposing an argument of unpatentability relied on by the United States Patent and Trademark Office, or (ii) asserting an argument of patentability.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application(s) which designated at least one country other than the United States, listed below. I have also identified below any corresponding foreign application(s) for patent or inventor's certificate or any corresponding PCT international application(s) having a filing date before that of the application(s) on which priority is claimed.

Prior Foreign Application(s)

| Number | Country | Filing Date (mm/dd/yyyy) | Priority Claimed (Yes or No) |
|----------------|---------|-----------------------------|---------------------------------|
| PCT/US99/06717 | PCT | 29 March 1999 | Yes |
| | | | |

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[Page 1 of 3]

by Robert B. Gynest

I hereby claim the benefit under Title 35, United States Code, § 119(c) of any United States provisional application(s) listed below.

United States Provisional Application(s)

| Application Number | Filing Date (mm/dd/yyyy) |
|--------------------|-----------------------------|
| 60/086,410 | May 22, 1998 |
| | |

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) or § 365(c) of any PCT international application(s) designating the United States, listed below. Insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application(s) in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose to the United States Patent and Trademark Office information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application(s) and the national or PCT international filing date of this application.

United States Application(s) Upon Which Priority is Claimed

| Application Number | Filing Date (mm/dd/yyyy) | Status (abandoned, pending, patent number) |
|--------------------|-----------------------------|---|
| 09/083,906 | May 22, 1998 | Pending |
| | | |

I hereby appoint the following attorney(s) and/or agent(s), all of whom are associated with Watts, Hoffmann, Fisher & Heinke Co., L.P.A., having offices at 1100 Superior Avenue East, Suite 1750, Cleveland, Ohio 44114-2518, to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith:

Thomas E. Fisher, Reg. No. 18,271
 Stephen J. Schultz, Reg. No. 29,108
 Lowell L. Heinke, Reg. No. 19,471
 John R. Hlavka, Reg. No. 29,076
 George L. Pinchak, Jr., Reg. No. 37,697

Linn J. Raney, Reg. No. 23,078
 Paul A. Serbinowski, Reg. No. 34,429
 Richard A. Sharpe, Reg. No. 34,722
 James G. Watterson, Reg. No. 20,180
 Peter R. Hagerty, Reg. No. 42,618
 Kenneth J. Smith, Reg. No. 45,115

and the following attorney(s), all of whom are associated with Microsoft Corporation having an address of One Microsoft Way, Redmond, Washington 98052-6399;

Daniel D. Crouse, Reg. No. 32,022

Katie E. Sako, Reg. No. 32,628

to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith, and I hereby designate the foregoing Stephen J. Schultz, Reg. No. 29,108, principal attorney.

This appointment shall include all power to prosecute and transact all business relating to all applications corresponding to this application in all countries, including all regional and international patent offices, such as, but not limited to, the European Patent Office and all offices and bureaus established in accordance with the Patent Cooperation Treaty.

I hereby further designate and appoint any officer of Watts, Hoffmann, Fisher & Heinke Co., L.P.A. my attorney in fact with full power of substitution and revocation, including power to designate a substitute principal attorney.

Address all correspondence to:

WATTS, HOFFMANN, FISHER & HEINKE CO., L.P.A.
1100 Superior Ave., Ste. 1750
Cleveland, Ohio 44114-2518

Direct all telephone calls to Stephen J. Schultz at (216) 241-6700 and direct all facsimile correspondence to (216) 241-8151.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issued thereon.

| | |
|---|--|
| Full Name of Sole or First Joint Inventor: Usama Fayyad | |
| Inventor's Signature: | Date: |
| Residence: Mercer Island, Washington | Citizenship: United States of America |
| Post Office Address: 9705 SE 43rd Street, Mercer Island, WA 98040 | |

| | |
|--|--|
| Full Name of Second Joint Inventor: Paul S. Bradley | |
| Inventor's Signature: | Date: |
| Residence: Seattle, Washington | Citizenship: United States of America |
| Post Office Address: 600 Lake Washington Blvd., East, Apt #C, Seattle, WA 98112 | |

| | |
|--|--|
| Full Name of Third Joint Inventor: Cory A. Reina | |
| Inventor's Signature: | Date: |
| Residence: Kirkland, Washington | Citizenship: United States of America |
| Post Office Address: 12107 86th Avenue, NE, Kirkland, WA 98034 | |



UNITED STATES PATENT AND TRADEMARK OFFICE

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| APPLICATION NUMBER | FILING DATE | GRP ART UNIT | FIL FEE REC'D | ATTY. DOCKET NO. | DRAWINGS | TOT CLAIMS | IND CLAIMS |
|--------------------|-------------|--------------|---------------|------------------|----------|------------|------------|
| 09/700,606 | 01/31/2001 | 2121 | 1152 | 14-694-4254 | 8 | 34 | 4 |

CONFIRMATION NO. 8142

FILING RECEIPT



OC000000005992681

Watts Hoffman Fisher & Heinke Company
Suite 1750
1100 Superior Avenue
Cleveland, OH 44114-2518

APR 3 7 2001

Date Mailed: 04/24/2001

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the PTO processes the reply to the Notice, the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Usama Fayyad, Mercer Island, WA;
Paul S. Bradley, Seattle, WA;
Cory A. Reina, Kirkland, WA;

Domestic Priority data as claimed by applicant

THIS APPLICATION IS A 371 OF PCT/US99/06717 03/29/1999
WHICH IS A CIP OF 60/083,906 05/01/1998
WHICH CLAIMS BENEFIT OF 60/086,410 05/22/1998

09/083,906

05/22/98

Foreign Applications

Projected Publication Date: N/A

Non-Publication Request: No

Early Publication Request: No

Title

Scalable system for clustering of large databases having mixed data attributes

*** RX REPORT ***

RECEPTION OK

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